



# STATE OF LOUISIANA

## Competitive Contract

Vendor: 310007174  
Company  
POTTERS INDUSTRIES LLC  
300 LINDENWOOD DRIVE  
MALVERN PA 19355  
Phone : 610-651-4714  
Fax : 610-408-9723

T Number:  
Version: 1  
LAPS Contract: No  
Fiscal Year: 2015  
Min.Ord.Value: 0.00  
Distributor Contract: No  
PCard:No  
Co-op Agreement:Yes

Contract number: 4400006828  
Description: DOTD Large Glass Beads

### Buyer Information

Name: JULIE KENNISON  
Tel Number: 225-379-1424  
Email: julie.kennison@la.gov

SEBD Vendor: No  
SEHI Vendor: No  
VSE Vendor: No  
DVSE Vendor: No  
Contract Valid Dates:  
07/15/2015 - 07/14/2016

**Supplier Text:** Annual Contract to Furnish Large Glass Beads effective July 15, 2015 through July 14, 2016. To be in accordance with the attached terms and conditions and specifications revised 03/2012.

At the option of the Department of Transportation and Development and acceptance by the contractor, this contract may be extended for two (2) additional twelve (12) month periods at the same terms, prices and conditions. Contract may not exceed thirty-six (36) months.

This is not an order to deliver. The quantities provided herein are estimated usage only. No quantities are guaranteed. Material will be ordered as needed.

Minimum truck load delivery: Approximately 44,000 pounds.

Prior to exercising the Department's option to extend contract, the Department will determine if an extension is in the best interest of the Department, taking into consideration current market trends, cost factors, price comparison with similar service in other States and various other factors as determined by the DOTD Procurement Director.

### PAYMENT:

In an effort to increase efficiencies and effectiveness as well as be strategic in utilizing technology and resources, DOTD strongly encourages vendors to participate in accepting Electronic Funds Transfer (EFT) payments.

EFT payments are sent from the State's bank directly to the payee's bank each weekday. The only requirement is that you have an active checking or savings account at a financial institution that can accept Automated

Recommending Approval:

Approved by:

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Clearing House (ACH) credit files and remittance information electronically. Additional information is available at <http://www.doa.louisiana.gov/OSRAP/EFTforWebsite.pdf>

**Notice to Vendor:**

Line	Material No.	Description	Prod. Cat.	UOM	Net Price	Discount
	Supplier Part No.					
1	11313	BEAD, GLASS SPHERE F/TRAFFIC PAINT, 50#BG  EMBEDMENT COATED, LARGE, DOTD SPEC MS 157-002, REV 03/2012, 2006 LA. STD. SPECIFICATIONS FOR ROADS & BRIDGES, SECTION 1015.13	31191500	LB	0.47000	
2	11314	BEAD, GLASS SPHERE F/TRAFFIC PAINT, 2000#  EMBEDMENT COATED, LARGE, 2,000 LB. CONTAINER, DOTD SPEC MS 157-002, REV 03/2012, 2006 LA. STD. SPECIFICATIONS FOR ROADS & BRIDGES, SECTION 1015.13	31191500	LB	0.47000	

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### Standard Terms and Conditions

1. THIS IS NOT AN ORDER TO SHIP (OR BEGIN SERVICE). A CONTRACT RELEASE OR PURCHASE ORDER MUST BE ISSUED BEFORE YOU ARE AUTHORIZED TO SHIP (OR BEGIN SERVICE).
2. THIS IS NOTICE THAT THE CONTRACT REFERENCED ABOVE HAS BEEN AWARDED TO YOU BASED ON THE BID (OR PROPOSAL) SUBMITTED. ALL TERMS, CONDITIONS, AND SPECIFICATIONS OF THE SOLICITATION WILL APPLY TO ALL ORDERS.
3. ANY AGENCY AUTHORIZED TO PURCHASE FROM THIS CONTRACT MUST ISSUE AN ORDER AND REFERENCE THE CONTRACT NUMBER, LINE NUMBER AND COMMODITY ITEM NUMBER FOR EACH ITEM.
4. CHANGES IN ITEMS TO BE FURNISHED ARE NOT PERMITTED (UNLESS APPROVED BY THE ISSUING AGENCY PRIOR TO DELIVERY). PRIOR APPROVAL MUST ALSO BE OBTAINED BEFORE DISTRIBUTORS CAN BE ADDED OR DELETED.
5. IF A DISTRIBUTOR LIST WAS SUBMITTED, CONTRACTOR MUST SEND COPIES OF THIS AWARD TO EACH DISTRIBUTOR.
6. QUANTITIES LISTED ARE ESTIMATED AND NO QUANTITIES ARE GUARANTEED (UNLESS "COMMITTED VOLUME" IS SPECIFICALLY STATED). CONTRACTOR MUST SUPPLY ACTUAL REQUIREMENTS ORDERED AT THE CONTRACT PRICE AWARDED.
7. COMPLIANCE WITH CIVIL RIGHTS LAWS.

THE CONTRACTOR AGREES TO ABIDE BY THE REQUIREMENTS OF THE FOLLOWING AS APPLICABLE: TITLE IV AND TITLE VII OF THE CIVIL RIGHTS ACT OF 1964, AS AMENDED BY THE EQUAL OPPORTUNITY ACT OF 1972, FEDERAL EXECUTIVE ORDER 11246, THE FEDERAL REHABILITATION ACT OF 1973, AS AMENDED, THE VIETNAM ERA VETERAN'S READJUSTMENT ASSISTANCE ACT OF 1974, TITLE IX OF THE EDUCATION AMENDMENTS OF 1972, THE AGE ACT OF 1975, AND CONTRACTOR AGREES TO ABIDE BY THE REQUIREMENTS OF THE AMERICANS WITH DISABILITIES ACT OF 1990. CONTRACTOR AGREES TO NOT TO DISCRIMINATE IN ITS EMPLOYMENT PRACTICES, AND WILL RENDER SERVICES UNDER THIS AGREEMENT AND ANY CONTRACT ENTERED INTO AS A RESULT OF THIS AGREEMENT, WITHOUT REGARD TO RACE, COLOR, RELIGION, SEX, NATIONAL ORIGIN, VETERAN STATUS, POLITICAL AFFILIATION, OR DISABILITIES. ANY ACT OF DISCRIMINATION COMMITTED BY CONTRACTOR OR FAILURE TO COMPLY WITH THESE STATUTORY OBLIGATIONS WHEN APPLICABLE SHALL BE GROUNDS FOR TERMINATION OF THIS AGREEMENT AND ANY CONTRACT ENTERED INTO AS A RESULT OF THIS AGREEMENT.

**STATE OF LOUISIANA**  
**DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT**  
**SPECIAL CONDITIONS AND SPECIFICATIONS**  
**FOR FURNISHING**  
**LARGE GLASS BEADS**

Please read the following instructions and special conditions and specifications carefully. Any deviation may cause your bid to be disqualified.

**CONTRACT**

Contract for furnishing Large Glass Beads for the Department's various Districts in the State as requested in accordance with provisions set forth for the twelve (12) month period as specified herein.

The continuation of this contract is contingent upon the appropriation of funds to fulfill the requirements of the contract by the legislature. If the legislature fails to appropriate sufficient monies to provide for the continuation of a contract, or if such appropriation is reduced by the veto of the Governor or by any means provided in the Appropriations Act or Title 39 of the Louisiana Revised Statutes of 1950 to prevent the total appropriation for the year from exceeding revenues for that year, or for any other lawful purpose, and the effect of such reduction is to provide insufficient monies for the continuation of the contract, the contract shall terminate on the date of the beginning of the first fiscal year for which funds are not appropriated.

**PURPOSE AND INTENTION**

The purpose and intention of this invitation to bid is to comply with State laws and establish a contract between the Department and the successful bidder(s), whereby the Department may purchase Large Glass Beads from the contractor as shown herein.

**CONTRACT FORM**

The contract proposal form in its entirety shall become a part of the contract upon execution by the Department. Bidder shall fill in this form completely and shall sign in the appropriate places and return to the Procurement Section of the Department of Transportation and Development before the time set for receiving contracts on the front thereof. Bidders should return entire proposal. Bidders are advised that bids mailed through the U.S. Postal Service to our post office box are received at the Baton Rouge Main Post Office and are picked up by the Division of Administration and then routed to the Department of Transportation and Development; therefore, extra delivery time is needed in order for bids to be received and time-stamped in our office before the bid deadline.

Bids may be mailed through the U.S. Postal Service to our box at:

DOTD Procurement Section  
Headquarters Administration  
4<sup>th</sup> Floor East Wing S-447  
P. O. Box 94245  
Baton Rouge, LA 70804-9245

Bids may be delivered by hand or courier service to our physical location as follows:

DOTD Procurement Section  
Headquarters Administration  
4<sup>th</sup> Floor East Wing S-447  
1201 Capitol Access Road  
Baton Rouge, LA 70802

Bidders are solely responsible for ensuring that its courier service provider makes inside deliveries to our physical location. The DOTD Procurement Office is not responsible for any delays caused by the bidder's chosen means of delivery. Bidder is solely responsible for the timely delivery of its bid. Failure to meet the bid opening date and time shall result in rejection of the bid. Bidders should make a copy of their bid before submitting the original contract proposal. Note: **The time set for receiving bids is Central Standard Time (CST).**

## SCOPE OF WORK

Scope of work includes labor, materials, and services required to produce Large Glass Beads which are acceptable to the Department of Transportation and Development.

## QUANTITIES

No specific quantities are given or guaranteed, only such Large Glass Beads as required by the Department of Transportation and Development during the contract period will be ordered.

The successful bidder must supply at bid price actual quantities as ordered whether the total of such quantities are more or less than the quantities shown in the Bid Schedule.

Glass Beads will not be ordered in less than truck load shipments.

Bids which specify a minimum delivery will not be considered for award.

Estimated usage indicated on the bid schedule is an estimate only. Districts have the option of switching container usage. Therefore, no quantities per container size are guaranteed.

## SPECIFICATIONS

All Large Glass Beads must be in accordance with MS Specification No. 157-002, Revised 03/2012.

Bags of Large Glass Beads shall be palletized for mechanical handling with 2,000 pounds of Beads per pallet.

Bulk containers shall be strapped or stretch wrapped so no product shifting or damage will occur during shipments. The bulk box container shall be capable of being lifted with a fork lift.

## **STANDARDS OF QUALITY**

Any product or service bid shall conform to all applicable Federal and State laws and regulations and the specifications contained herein.

## **GUARANTEE AND LIABILITY**

The contractor accepts the following guarantees:

- (1) Guarantee that the supplies delivered are free from defects in design and construction.
- (2) Guarantee that the supplies are the manufacturer's standard design in construction and that no changes or substitutions have been made in the items listed in this contract.

The contractor holds and saves the State, its officers, agents, and employees harmless from liability of any kind, including cost and expenses on account of any patented or unpatented invention, articles, devices or appliances manufactured or used in the performance of this contract, including use by the government.

The contractor agrees to replace free of charge all defective equipment, materials or supplies delivered under this contract. All transportation charges covering return and replacement shall be paid by the contractor.

## **PRICES**

All prices quoted shall be in the unit of measure as shown on the Bid Schedule and shall remain firm for the contractual period. Unit price bid must not exceed two digits to right of decimal point. Unit price submitted beyond two digits will be rounded off to the nearest second digit.

Prices quoted shall include all costs incidental to any license or patent that may be held by any company processing the materials bid on and the dealer agrees to hold the Department of Transportation and Development harmless from any claims, suits, costs or penalties for infringement or use of licensed or patented products.

## **BASIS OF AWARD**

The award of the contract will be made to the overall low bidder complying with all details of this contract proposal as determined by the DOTD Procurement Director. The overall total will be determined by adding the unit price of Line 1 and Line 2 together.

Discounts will not be considered in determining low bidder.

## **DELIVERY**

The successful bidder will be required to have on hand or immediately available an adequate supply of Large Glass Beads in order to meet the Department's requirements, as ordered, where ordered, during the life of the contract.

Due to the fact that some Districts do not accept Friday deliveries, successful bidder must notify the District Business Office for approval prior to scheduling any Friday deliveries.

## **DAMAGE IN SHIPMENT**

Shipments under this contract are F.O.B. destination and title to the goods remain with the contractor until accepted by the Department. However, the Department has a responsibility to report any damage immediately to the contractor. In all cases, a note of damage (except concealed damage) shall be noted on the freight bill at the time the shipment is received by the Department. In all cases where an adjustment is made by the contractor because of damage, the contractor shall issue a credit memorandum to the Department and shall not be required to ship the small quantities which were damaged.

## **PACKAGING**

Large Glass Beads are to be packaged in fifty (50) pound bags or in bulk box containers containing approximately 2,000+ 1% pounds of beads in accordance with DOTD Specifications.

Bags of Beads shall be palletized for mechanical handling with 2,000 pounds of beads per pallet.

The bulk box containers shall be cardboard or other approved material in accordance with DOTD Specifications.

The bulk container shall be strapped or stretch wrapped so no product shifting or damage will occur during shipment. The bulk box container shall be capable of being lifted with a fork lift.

## **PURCHASE ORDERS**

Purchase Orders will be issued by the Department of Transportation and Development. Each Purchase Order will state the actual quantity that is required, the delivery address to which it needs to be delivered, and all other pertinent data necessary to assist the contractor to make proper delivery. In no event shall delivery be made without proper authorization.

## **INVOICES**

Upon each delivery and its acceptance by the Department, the contractor shall bill the Department by means of an invoice and such invoice shall make reference to the Purchase Order Number on which delivery was made.

At the time of delivery, the contractor is to make a delivery receipt on his own form showing complete description, the exact quantity delivered, price and extension. Such

delivery ticket must make reference to the Purchase Order Number.

Invoices shall be submitted by the contractor directly to the address shown on the Purchase Order.

Invoice price must agree with contract price.

## **PAYMENTS**

Invoices will be paid by the Department within the discount period or within thirty calendar days from receipt of correct invoice. If contractor proposes a discount, discount period will start from receipt of correct invoice.

## **TAXES**

The contractor is responsible for including all applicable taxes in the bid price. State Agencies are exempt from all State and Local Sales and Use Taxes.

## **SAMPLING AND ACCEPTANCE**

All Large Glass Beads shall be sampled and accepted in accordance with the Department's Materials Sampling Manual.

Low bidder will be required to submit free of charge either one (1) unopened fifty (50) pound bag of Large Glass Beads or one gallon friction top can filled approximately three quarters full.

Samples must be clearly identified by either the material master or specification number. These samples are subject to approval and acceptance by the Materials and Testing Laboratory before award is made.

After the award, the low bidder shall submit a certificate of analysis for each lot shipped. DOTD will sample and test one (1) sample per lot and/or shipment.

## **EXTENSION OF CONTRACT**

At the option of the Department and acceptance by the contractor, contract(s) awarded under this proposal may be extended for an additional two (2) twelve month periods at the same terms and prices upon giving ten (10) days written notice to the contractor. Contract not to exceed thirty-six months.

Prior to exercising the Department's option to extend contract, the Department will determine if an extension is in the best interest of the Department, taking into consideration current market trends, cost factors, price comparison with similar service in other States and various other factors as determined by the DOTD Procurement Director.

## **DEFAULT OF CONTRACTOR**

Failure to deliver within the time specified in the bid will constitute a default and may cause cancellation of the contract. Where the State has determined the contractor to be in default, the Department of Transportation and Development reserves the right to purchase



any or all products or services covered by this contract on the open market and charge the contractor with cost in excess of the contract price. Until such assessed charges have been paid, no subsequent bid from the defaulting contractor will be considered.

## **TERMINATION OF CONTRACT**

The Department reserves the right to terminate this contract prior to the end of the contract period upon giving a ten (10) day written notice to the contractor for unsatisfactory performance, unsatisfactory delivery, unsatisfactory service, failure to meet specifications, misrepresentation by the contractor, fraud, collusion, conspiracy or other unlawful means of obtaining any contract with the State, conflict of contract provisions with constitutional or statutory provisions of State or Federal Law, and/or any breach of contract.

The Department reserves the right to terminate this contract prior to the end of the contract period upon giving a thirty (30) day written notice to the contractor if it is considered in the best interest of the Department.

Successful contractor may request cancellation of this contract upon giving thirty (30) day written notice to the DOTD Procurement Director.

All orders delivered prior to the effective date of such termination shall be paid for by the Department in accordance with the terms of the contract, whereupon all obligations of both parties to the contract shall cease.

In the event contract contains a provision entitled "Guarantees" such guarantees shall apply to all items delivered prior to termination.

## **BIDDERS CERTIFICATION OF EEOC AND ADA COMPLIANCE**

The Department of Transportation and Development and the State of Louisiana is an equal opportunity employer and looks to its contractors, subcontractors, vendors and suppliers to take affirmative action to affect this commitment in its operations.

By submitting and signing this bid, bidder certifies that he agrees to abide by the requirements of the following as applicable: Title VI and VII of the Civil Rights Act of 1964, as amended by the Equal Opportunity Act of 1972, Federal Executive Order 11246, Federal Rehabilitation Act of 1973, as amended, the Vietnam ERA Veteran's Readjustment Assistance Act of 1974, Title IX of the Education Amendments of 1972, The Age Act of 1975, and bidder agrees to abide by the requirements of the Americans with Disabilities Act of 1990.

Bidder agrees not to discriminate in its employment practices and will render services under any contract entered into as a result of this solicitation without regard to race, color, religion, sex, sexual orientation, national origin, veteran status, political affiliation, or disabilities. Any act of discrimination committed by bidder, or failure to comply with these statutory obligations when applicable shall be grounds for termination of any contract entered into as a result of this proposal.

Bidder agrees to keep informed of and comply with all Federal, State and local laws, ordinances and regulations which affect his employees or prospective employees.

## **INDEMNITY**

Contractor agrees, upon receipt of written notice of a claim or action, to defend the claim or action, or take other appropriate measures, to indemnify, and hold harmless, the State, its officers, its agents and its employees from and against all claims and actions for bodily injury, death or property damages caused by the fault of the contractor, its officers, its agents or its employees. Contractor is obligated to indemnify only to the extent of the fault of contractor, its officers, its agents, or employees.

However, the contractor shall have no obligations as set forth above with respect to any claim or action from bodily injury, death or property damages arising out of the fault of the State, its officers, its agents or its employees.

For good cause and as consideration for executing this contract, the contractor hereby conveys, sells, assigns and transfers to the State of Louisiana all rights, title and interest in and to all causes of action it may now or hereafter acquire under the Antitrust Laws of the United States and the State of Louisiana, relating to the particular goods or services purchased or acquired by the State of Louisiana pursuant to the Department of Transportation and Development.

## PREFERENCE

In accordance with Title 39:1595 of the Louisiana Revised Statutes, a preference of 10% may be allowed for products manufactured, produced, grown, assembled or harvested in Louisiana of equal quality.

Do you claim this 10% preference?

Yes \_\_\_\_\_ No \_\_\_\_\_

Specify if preference is claimed for all items shown on contract:

Yes \_\_\_\_\_ No \_\_\_\_\_

If preference is claimed for only part of the items shown on contract, must specify which items:

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Specify location within Louisiana where this product is manufactured, produced, grown, assembled or harvested:

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**Note:** Louisiana vendors claiming this preference should also certify that 50% of their workforce is comprised of Louisiana residents in order to be entitled to the 10% preference. Louisiana vendors should complete the following certificate:

This is to certify that 50% of workforce is comprised of Louisiana residents:

Yes \_\_\_\_\_ No \_\_\_\_\_

(Proof of certification may be required)

Failure to specify above information will cause elimination from 10% preference.

## PREFERENCE

Procurement of United States products:

In accordance with the provisions of R.S. 39:1595.7, in the event a contract is not entered into for products purchased under the Provisions of R.S. 39:1595, each procurement officer, Purchasing Agent, or similar official who procures or purchases materials, supplies, products, provisions, or equipment under the provisions of this chapter may purchase such materials, supplies, products, provisions, or equipment which are manufactured in the United States, and which are equal in quality to other materials, supplies, products, provisions, or equipment, provided that all of the following conditions are met:

- (1) The cost of such items does not exceed the cost of other items which are manufactured outside the United States by more than five percent.
- (2) The vendor of such items agrees to sell the items at the same price as the lowest bid offered on such items.
- (3) In cases where more than one bidder offers items manufactured in the United States which are within five percent of the lowest bid, the bidder offering the lowest bid on such items is entitled to accept the price of the lowest bid made on such items.
- (4) The vendor certifies that such items are manufactured in the United States.

For the purposes of this preference,

- (1) "Manufactured in the United States" means produced by a process in which the manufacturing, final assembly, processing, packaging, testing, and any other process that adds value, quality, or reliability to assembled articles, materials, or supplies, occur in the United States.
- (2) "United States" means the United States and any place subject to the jurisdiction of the United States.

Do you claim this preference? \_\_\_\_\_yes

Specify line number(s): \_\_\_\_\_  
\_\_\_\_\_

Specify location within the United States where this product is  
Manufactured: \_\_\_\_\_

(note: if more space is required, include on separate sheet)

## COOPERATIVE PURCHASE AGREEMENT

State Agencies, Political Subdivisions of the State and Quasi State Agencies may be permitted to purchase from contracts made by the Department of Transportation and Development's Procurement Section.

The Bidder may, at his option, accept this Cooperative Purchase Agreement so that any contract awarded under this proposal will apply to other State Agencies, Political Subdivisions or Quasi Agencies.

Bidder hereby accepts this Cooperative Purchase Agreement so that any contract awarded will apply to other State Agencies, Quasi State Agencies or other Political Subdivisions of the State.

\_\_\_\_\_ Yes, I agree to accept Cooperative Purchase Agreement

\_\_\_\_\_ No, I do not accept Cooperative Purchase Agreement

Failure to mark "no" on the above will constitute acceptance of this Cooperative Purchase Agreement to other State Agencies, Political Subdivisions of the State and Quasi State Agencies.

Choosing not to accept this Cooperative Purchase Agreement will have no bearing on the award of the contract.

**ORDERS:** Other State Agencies are to issue contract release orders/purchase orders for the items required, as and when needed.

Political subdivisions of the State and Quasi Agencies who have been authorized by the Office of State Purchasing to purchase from contracts made by the Department of Transportation and Development are to issue their regular purchase orders directly to the Contractor, making reference to the Contract Number, Item Number (if applicable) and Contract Expiration Date.

**CONTRACT ADMINISTRATION:** The Department of Transportation and Development will not monitor, administer or resolve any discrepancies, controversies, invoicing or payments related to this contract on orders placed by other State Agencies, Political Subdivisions or Quasi Agencies.

Controversies between the Department of Transportation and Development and a Contractor will be resolved by the DOTD Procurement Director.

Controversies between other State Agencies and a Contractor will be resolved by the Director of State Purchasing in accordance with R.S. 39:1673.

It will be the responsibility of the ordering entity to correspond directly with the Contractor.

**DELIVERY:** Vendors accepting the Cooperative Purchase Agreement understand and agree that deliveries to other State Agencies, Political Subdivisions or Quasi Agencies will be on a statewide basis.

## DOTD Delivery Locations for Glass Beads:

### DOTD Dist 02

1440 Highway 90,  
Bridge City, LA 70094

### DOTD Dist 03

428 Hugh Wallis Rd.,  
Lafayette, LA 70508

### DOTD Dist 04

3339 Industrial Dr.  
Bossier City, LA 71112

### DOTD Dist 05

8010 Desiard Rd.  
Monroe, LA 71203

### DOTD Dist 07

5827 Hwy 90 E.  
Lake Charles, LA 70615

### DOTD Dist 08

3300 MacArthur Dr.  
Alexandria, LA 71302

### DOTD Dist 58

6217 Hwy 15 S.  
Chase, LA 71324

### DOTD Dist 61

8100 Airline Hwy  
Baton Rouge, LA 70815

### DOTD Dist 62

685 N. Morrison Blvd  
Hammond, LA 70401

District	Estimated Usage for Product ID # 11313 (Stock # 18-21-2511)- 50 LB Bags	Estimated Usage for Product ID # 11314 (Stock # 18-21-2515) - 2,000 LB Bulk Box
02	0	44,000 lbs
03	0	750,000 lbs
04	250,000 lbs	0
05	0	200,000 lbs
07	176,000 lbs	0
08	0	352,000 lbs
58	0	132,000 lbs
61	0	222,000 lbs
62	0	308,000 lbs

**LOUISIANA  
DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT  
SPECIFICATIONS**

**LARGE EMBEDMENT COATED GLASS BEADS  
FOR PAVEMENT MARKING**

**DESCRIPTION:**

The large embedment coated glass beads in this specification are to be used with a binder for pavement markings.

**GENERAL REQUIREMENTS:**

The beads shall be transparent, clean, colorless glass, smooth and spherically shaped, free from milkiness, pits, or excessive air bubbles and conform to the specific requirements for the class designated. The beads shall be non-flotation, embedment coated and conform to the following specific requirements. The beads shall conform to the requirements of AASHTO M 247 as modified herein.

**SPECIFIC REQUIREMENTS:**

A specimen consisting of one unopened 50 pound bag of the beads shall be submitted to the Department's Materials and Testing Laboratory for testing. When beads are supplied in bulk boxes, the sample shall consist of a one gallon friction top can filled approximately three quarters full.

**1. Moisture Resistance:**

Flow characteristics – The beads shall not absorb moisture in storage. They shall remain free of clusters and lumps and shall flow freely from the dispensing equipment.

**2. Gradation:**

The gradation of the beads shall be in accordance with ASTM 1214 and shall meet the gradation requirements of Table 1.

**TABLE 1**

<b>U. S Standard Sieve Number</b>	<b>Percent Retained</b>
12	0
14	0 – 5
16	5 – 20
18	40 – 80
20	10 – 40
25	0 – 5
Pan	0 - 2

**3. Roundness:**

The beads shall have a minimum of 80 percent rounds per screen for the two (2) highest sieve quantities. The remaining sieve fractions shall be no less than 75 percent rounds as determined by microscopic examination.

**4. Angular Particles:**

The beads shall have no more than three (3) percent angular particles per screen.

**5. Refractive Index:**

The beads shall have a refractive index of 1.50 to 1.52 when tested by the liquid immersion method.

**6. Embedment Coating:**

The beads shall be coated with an adhesion assuring coating. Glass beads shall be properly coated and conform to the requirements when tested as described in DOTD TR 530 Determination of Embedment Coating on Large Embedment Coated Glass Beads for Pavement Markings.

**7. Heavy Metal Limits:**

The glass beads shall not contain more than 75 parts per million of inorganic arsenic, when tested using EPA Method 6010B in conjunction with EPA Method 3052 for sample preparation.

**8. Packaging and Marking:**

7.1 SAP Material Master Number 11313 (18-21-2511)

7.1.1 The beads shall be packaged in 50 pound moisture proof bags.



7.2 SAP Material Master Number 11314 (18-21-2515)

7.2.1 The beads may be packaged in bulk box containers containing approximately 2,000±1% pounds of beads. The bulk box containers shall be cardboard or other approved material. They shall have a coated polypropylene lining with an inlet spout approximately 14" x 18", a bottom outlet spout approximately 10" D x 22" L with side tie and sleeve cover, four 10" polyester web corner loops, and be approximately 36" x 36" x 32". The bulk box container shall be designed to FIBCA industry safety factor of 5:1. The bulk container shall be strapped or stretch wrapped so no product shifting or damage will occur during shipment. The bulk box container shall be capable of being lifted with a fork lift.

7.3 Each bag or bulk box container shall be stamped with the following information:

Name and address of manufacturer  
Shipping point  
Trademark or name  
The wording "Large Embedment Coated Glass Beads"  
Class  
Weight  
Lot number  
Month and year of manufacture

**8. Sampling and Acceptance:**

The manufacturer shall submit certificate of analysis on each lot shipped. DOTD will sample and test one sample per lot and/or shipment. The sample shall be as indicated in the SPECIFIC REQUIREMENTS.